

WEST Search History

DATE: Friday, December 29, 2006

Hide?	Set Name	Query	Hit Count
		<i>DB=DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L10	2004055927	3
<input type="checkbox"/>	L9	2004055839	3
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L8	L7 and 134/902.ccls.	13
<input type="checkbox"/>	L7	capillary tube	37484
		<i>DB=EPAB; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L6	EP-1058300-A2.did.	1
<input type="checkbox"/>	L5	EP-1058300-A2.did.	1
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L4	6797074 or 6523553	7
<input type="checkbox"/>	L3	L2 and gas	1
<input type="checkbox"/>	L2	L1 and horizontal\$	3
<input type="checkbox"/>	L1	markoff and swab and 134/\$.ccls.	4

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L9: Entry 3 of 3

File: DWPI

Oct 25, 2006

DERWENT-ACC-NO: 2004-243577
DERWENT-WEEK: 200670
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TITLE: Substrate processing apparatus for manufacturing semiconductor device,
discharges cleaning liquid at predetermined flow rate to cleaning portion of
substrate

PATENT-ASSIGNEE:

ASSIGNEE	CODE
EBARA CORP	EBAR

PRIORITY-DATA: 2002JP-0211524 (July 19, 2002)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> JP 3838945 B2	October 25, 2006		008	H01L021/02
<input type="checkbox"/> JP 2004055839 A	February 19, 2004		009	H01L021/306

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 3838945B2	July 19, 2002	2002JP-0211524	
JP 3838945B2		JP2004055839	Previous Publ.
JP2004055839A	July 19, 2002	2002JP-0211524	

INT-CL (IPC): H01L 21/02; H01L 21/304; H01L 21/306

ABSTRACTED-PUB-NO: JP2004055839A

BASIC-ABSTRACT:

NOVELTY - A cleaning liquid discharge nozzle (23) supplies cleaning liquid (L) at the flow rate of 0.1 m/second or more to the cleaning portion (B) of the substrate.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for substrate processing method.

USE - For manufacturing semiconductor device using chemical vapor deposition process.

ADVANTAGE - Reduces the usage amount of cleaning liquid, while a maintaining clean

environment in the chamber.

DESCRIPTION OF DRAWING(S) - The figure shows the top and sectional views of substrate processing apparatus.

chucks 21a-21d

cleaning liquid discharge nozzle 23

cleaning liquid receptacle portion 25

cleaning portion B

cleaning liquid L

wafer W

CHOSEN-DRAWING: Dwg.3/4

TITLE-TERMS: SUBSTRATE PROCESS APPARATUS MANUFACTURE SEMICONDUCTOR DEVICE DISCHARGE
CLEAN LIQUID PREDETERMINED FLOW RATE CLEAN PORTION SUBSTRATE

DERWENT-CLASS: U11

EPI-CODES: U11-C06A1A; U11-C07;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2004-193262

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L10: Entry 3 of 3

File: DWPI

Oct 25, 2006

DERWENT-ACC-NO: 2004-243614

DERWENT-WEEK: 200670

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TITLE: Substrate processing apparatus e.g. for semiconductor wafer, rotates horizontally placed substrate, and supplies processing liquid to rotating substrate

PATENT-ASSIGNEE:

ASSIGNEE

CODE

EBARA CORP

EBAR

PRIORITY-DATA: 2002JP-0213078 (July 22, 2002)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> JP 3838946 B2	October 25, 2006		014	H01L021/02
<input type="checkbox"/> JP 2004055927 A	February 19, 2004		014	H01L021/306

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 3838946B2	July 22, 2002	2002JP-0213078	
JP 3838946B2		JP2004055927	Previous Publ.
JP2004055927A	July 22, 2002	2002JP-0213078	

INT-CL (IPC): H01L 21/02; H01L 21/304; H01L 21/306

ABSTRACTED-PUB-NO: JP2004055927A

BASIC-ABSTRACT:

NOVELTY - A vacuum chuck rotates the substrate (W) placed horizontally, and the processing liquid is supplied to the rotating substrate by the liquid supply units (15,20), such that the liquid rests on the substrate.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for substrate processing method.

USE - For processing substrate such as semiconductor wafer.

ADVANTAGE - The reaction efficiency is improved using less processing liquid, thereby maintaining a clean environment in a chamber.

DESCRIPTION OF DRAWING(S) - The figure shows the perspective, top and side views of the substrate processing apparatus. (Drawing includes non-English language text).

liquid supply units 15,20

supply nozzle 16

chemical solution inlet tube 17

suction nozzle 21

substrate W

CHOSEN-DRAWING: Dwg.2/10

TITLE-TERMS: SUBSTRATE PROCESS APPARATUS SEMICONDUCTOR WAFER ROTATING HORIZONTAL
PLACE SUBSTRATE SUPPLY PROCESS LIQUID ROTATING SUBSTRATE

DERWENT-CLASS: U11

EPI-CODES: U11-C06A1A; U11-C07;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2004-193299

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L4: Entry 7 of 7

File: DWPI

Sep 28, 2004

DERWENT-ACC-NO: 2001-410595

DERWENT-WEEK: 200464

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TITLE: Cleaning apparatus for thin discs such as semiconductor wafers, to remove materials such as processing residue or deposited material from edge of disc

INVENTOR: BROWN, B J ; REDEKER, F C ; SUGARMAN, M

PATENT-ASSIGNEE:

ASSIGNEE

CODE

APPLIED MATERIALS INC

MATEN

BROWN B J

BROWI

REDEKER F C

REDEI

SUGARMAN M

SUGAI

PRIORITY-DATA: 1999US-0281618 (March 30, 1999), 2002US-0278115 (October 22, 2002)

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PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> US 6797074 B2	September 28, 2004		000	B08B007/04
<input type="checkbox"/> EP 1058300 A2	December 6, 2000	E	011	H01L021/306
<input type="checkbox"/> JP 2000350967 A	December 19, 2000		008	B08B001/00
<input type="checkbox"/> US 20030041879 A1	March 6, 2003		000	B08B007/00
<input type="checkbox"/> US 6523553 B1	February 25, 2003		000	B08B003/04

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL
PT RO SE SI

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6797074B2	March 30, 1999	1999US-0281618	Div ex
US 6797074B2	October 22, 2002	2002US-0278115	
US 6797074B2		US 6523553	Div ex
EP 1058300A2	March 30, 2000	2000EP-0302704	
JP2000350967A	March 30, 2000	2000JP-0095603	
US20030041879A1	March 30, 1999	1999US-0281618	Div ex
US20030041879A1	October 22, 2002	2002US-0278115	

US 6523553B1

March 30, 1999

1999US-0281618

INT-CL (IPC): B08B 1/00; B08B 3/04; B08B 3/08; B08B 3/12; B08B 7/00; B08B 7/04;
B08B 11/00; H01L 21/00; H01L 21/304; H01L 21/306

ABSTRACTED-PUB-NO: EP 1058300A
BASIC-ABSTRACT:

NOVELTY - Material layers are etched and/or residue is cleaned from the edge of the disc. Etchant is applied to the disc's edge via an absorbent swab (13) into which fluid supply line extends. Swab is placed in contact with the edge of the disc and etchant is supplied via the fluid supply line as the disc is rotated. A rinsing fluid source, such as rinsing nozzle (37) is positioned to remove the etchant from the edge of the disc.

DETAILED DESCRIPTION - Etchant is supplied via a trough (31) positioned between a pair of rollers (15a,15b) Etchant supply line (33) is coupled to the trough at a position before the semiconductor wafer (17) enters the trough, and the etchant outlet line (35) is coupled to the trough at a position after the semiconductor wafer exits the trough. A rinsing fluid station e.g. rinsing nozzle (37), is positioned to rinse etchant from the semiconductor wafer before the portion having etchant rotates to a position where etchant may contact major surface of the semiconductor wafer.

USE - For cleaning thin discs such as semiconductor wafers, compact discs, etc. especially for removing material such as processing residue or deposited material from the edge of a thin disc.

ADVANTAGE - Invention allows for complete removal of copper and tungsten from the wafer's edge.

DESCRIPTION OF DRAWING(S) - Drawing is side view of an embodiment of the invention which applies etchant via a trough.

Absorbent swab 13

Rollers 15a,15b

Semiconductor wafer 17

Etchant supply line 33

Etchant outlet line 35

Rinsing nozzle 37

CHOSEN-DRAWING: Dwg.2/3

TITLE-TERMS: CLEAN APPARATUS THIN DISC SEMICONDUCTOR WAFER REMOVE MATERIAL PROCESS
RESIDUE DEPOSIT MATERIAL EDGE DISC

DERWENT-CLASS: P43 T03 U11 W04

EPI-CODES: T03-B01D1; T03-B01E3X; U11-C06A1B; W04-C01E;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N2001-303740